



Residential Buyout Program Eliminates Repetitive Flood Loss

Full Mitigation Best Practice Story

Jefferson County, Missouri

Arnold, MO - The City of Arnold (pop. 20,082) is a thriving, prosperous community located just 20 miles south of St. Louis where the Meramec River joins the Mississippi. The Meramec, flowing south, forms the eastern border of the city. But in the late spring/summer of 1993, great floods struck hard across the Midwest, inundating northeastern portions of Arnold and damaging more than 225 properties. While the potential for flooding is always a fact of life in Arnold, the 1993 flood was the most significant and devastating flood in the city's history.



Arnold residents William and Kathy Flanigan were better prepared than most. When it became apparent flooding was imminent in mid-July, they picked up their possessions and moved nearly everything they owned to higher elevations – to seven separate locations in all. A 16th birthday party planned for their daughter had to pass without celebration.

“Life happens. Birthdays and funerals go on. Then you have to fit a flood in,” said Kathy Flanigan.

But returning home in August after the water subsided, the Flanigans found water had completely filled their basement and reached eight inches above the first floor.

Following the 1993 flood, the Flanigans were one of 528 Arnold households to apply for Federal disaster assistance. Between the disaster housing assistance program, individual and family grants, and low-interest loans from the Small Business Administration (SBA), the recovery costs totaled more than \$2 million. The National Flood Insurance Program (NFIP) paid another \$2.3 million to the households in the buyout program.

Mayor Mark Powell noted that the combined disaster assistance did not include the human costs, such as lost wages, missed work, and the overall effect on the local economy. He further estimated the city's cost for public services, such as sandbagging, health services, and cleanup, averaged about \$10,000 per day over the April through September period that high water threatened the community in the early stages of the flood.

Since the early 1980s, city officials have been actively encouraging property owners in the 100-year flood zone to either relocate or take steps to protect their properties. Of the other methods that protect property owners from and prevent flooding, the buyout program made the most sense to Arnold officials. A proposed levee system studied in a 1976 report by the U.S. Army Corps of Engineers (USACE) would not be cost effective, said city administrators.

For the voluntary buyout program in February 1994, more than \$4.3 million in Federal Hazard Mitigation Grant Program (HMGP) funding was approved. The Federal contribution to the program was 67 percent of the cost, while a Community Development Block Grant and State and local funding paid for the rest. Arnold officials aggressively encouraged residents' participation. The Flanigans, and others, received formal written notice that assistance was available to help them relocate out of the flood zone, and word quickly spread.

The response to the city's mitigation efforts at that time, according to City Administrator Eric Knoll, was “remarkable and responsive.” In all, 72 properties were acquired by the city following the 1993 event and returned to green space and/or minimal maintenance recreation areas.

The Flanigans quickly agreed to the buyout after receiving the notice. William and Kathy, along with their four children, spent nine months in temporary shelter in a convent until buying a new home located at one of the highest elevations in the city. Their local former address is a now permanent green space.

The success of the buyout continues to be apparent. Just two years later in late spring of 1995, floodwaters reached nearly the level they did in 1993. This time, 26 applied for assistance, and disaster recovery costs were only \$40,000. Since the Federal disaster declaration of March 19, 2008, there have been only 10 applicants for assistance from the City of Arnold.

Kathy Flanigan said she used to curse the Meramec every time she crossed it. Today, she's actively involved with a city-sanctioned "hometown group," which hopes to turn the new green space in the flood zone into a community asset. Plans are in the earliest stages.

"We're now able to focus on the benefits of the river," said Mayor Powell.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region VII**

State: **Missouri**

County: **Jefferson County**

City/Community: **Arnold**

Key Activity/Project Information

Sector: **Public**

Hazard Type: **Flooding**

Activity/Project Type: **Acquisition/Buyouts**

Structure Type: **Wood Frame; Masonry, Un-reinforced/Plain**

Activity/Project Start Date: **02/1994**

Activity/Project End Date: **01/1997**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Local Sources; Other Federal Agencies (OFA)**

Application/Project Number: **unknown**

Activity/Project Economic Analysis

Cost: **\$4,381,191.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**

Federal Disaster #: **995 , 07/09/1993**

Federal Disaster Year: **1993**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **1995**

Repetitive Loss Property? **Unknown**

Reference URLs

No URLs were submitted

Main Points

- City officials have been actively encouraging property owners in the 100-year flood zone to either relocate or take steps to protect their properties.
- More than \$4.3 million in Federal Hazard Mitigation Grant Program (HMGP) funding was approved for the voluntary buyout program. The Federal contribution to the program was 67 percent of the cost.



City of Arnold officials



Kathy Flanigan at the site of her former home